Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte STEPHEN F. TANSOSCH

Appeal No. 2003-0144
Application No. 09/400,932

ON BRIEF

Before ABRAMS, STAAB, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 13 and 16 to 20. Claims 1 to 11 have been withdrawn from consideration. Claims 12, 14 and 15 have been canceled.

We REVERSE.

BACKGROUND

The appellant's invention relates to pumping hose adapters which are particularly useful to control the velocity of concrete pumped from a truck via a boom (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Henderson	493,719	Mar. 21, 1893
Metzger	4,838,465	June 13, 1989

Claims 13 and 16 to 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Metzger in view of Henderson.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the answer (Paper No. 27, mailed May 22, 2002) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 26, filed May 6, 2002) and reply brief (Paper No. 28, filed July 22, 2002) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 13 and 16 to 20 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Claim 20, the only independent claim on appeal, reads as follows:

> A method for low velocity discharging pumped concrete in a substantially splatter-free manner comprising the steps of supporting the output end of a

> discharge hose by a pumping adapter having at least two collars each having an inner surface for contacting at least a portion of the circumference of said discharge hose and a linkage removably secured to said at least two collars for enabling said hose to move through a range of angles, forming a bend in the discharge hose by applying a force having at least a normal component to at least one of said collars such that said bend aids in imparting a controlled substantially splatter free delivery, wherein said force is applied by said linkage.

Metzger's invention relates to the building and construction trades and to hose guide means for the delivery of a high density material, such as concrete, to a predetermined location at a work site. Metzger teaches in the BACKGROUND OF THE PRIOR ART section of the patent (column 1, lines 18-48) that:

> In any commercial and large scale construction projects, concrete is delivered for pouring at given locations by means of a hose through which the concrete is conveyed either by a gravity force or pumping means for delivery to a predetermined location, such as a building form. The hose is a generally flexible, circular tube, usually of the order of about 4 inches in diameter formed from a flexible material such as reinforced fiber which is capable of withstanding the abrasive force of continuous concrete flow. Such a hose is generally manipulated by several construction workers, i.e. a work gang, who guide the hose and its delivery of concrete to the intended form such as a foundation, wall, pillar or other feature of the building to be formed from poured concrete.
>
> As a well know, concrete has a very high weight per unit volume. In the delivery of concrete by means of a hose, it is extremely difficult for the gang of workers to manipulate the concrete delivery hose because of the weight of the concrete in the hose and also because of the momentum induced in the hose caused by the motion of the concrete through the hose. Usually a gang of up to four or more workers is required to control and to hold the delivery hose in place typically using chains or ropes as guides for the hose. Work on such a gang is physically demanding and fatiguing. As a matter of common sense, the difficulty in holding a chain or rope for an extended period of time during a work day--even if gloves are used--is plainly evident. Thus, such concrete hose "gangs" require frequent rest and personnel replacement.

It is an object of Metzger's invention to provide an improved means by which a construction worker on a hose gang is able to hold, control and manipulate a concrete delivery hose. In Figures 1 and 2, Metzger teaches a bar guide for a concrete delivery hose which includes a flexible connecting means between a clamp which attaches to the hose and the bar handle. Operation of the invention is shown in Figure 4 wherein concrete from a hopper 100 is to be delivered through hose 101 to a building form 102 which is at a distance from the hopper. Workers 103 and 104 are shown on a working surface 105. The bar hose guides, such as shown in Figures 1 and 2 are affixed to the hose at the end of the hose distant from the concrete source and proximate the construction site location at which the concrete is to be delivered. The concrete being poured is shown flowing from the delivery end of the hose at 106. A gravity fed system is shown although pumped or other systems which force concrete through the hose are also known. The bar guides thus shown in Figure 4 include the clamp means 200 for securing connection around the outer diameter of the hose, flexible interconnection means 201 between the clamp and the stem 202 of the bar, and bar crossing means 203 which are held at each end by the two hands of the construction workers. The bar guides are thus manipulated in coordination by the work gang to guide the delivery end of the hose to the form which is to receive the concrete. In this manner it can be seen that the guide of the invention allows the workers to be separated a predetermined distance from each other and from the hose. The workers are comfortably spaced and

the bar means allows further flexible manipulation of the hose to guide the delivery concrete. Using the bar guide, the workers my assume a more physiologically comfortable and secure stance than would be possible if ropes or chains were used. Metzger states (column 4, lines 36-40) that;

> the depiction of FIG. 4 is of course figurative rather than literal and it is evident that horizontal and pumped delivery of concrete through the hose and different numbers of workers may be used in a hose gang employing the guide of the invention.

Henderson's invention relates to devices for sustaining speaking or sound transmitting tubes and is especially well adapted for the speaking tubes used in connection with the phonograph, graphophone and kindred machines. Henderson teaches (page 1, lines 13-28) that:

> Heretofore it has been the practice to hold the speaking tube with one hand while dictating to the machine. This very often is very inconvenient, and allows the operator the use of only one hand for handling papers or for other uses. It is very desirable often that the operator may have the use of both hands, and it is with the foregoing difficulties in mind that this invention has been devised to remove them and to give to the operator the freedom of both hands while dictating to the machine, and also to avoid the necessity of picking up the tube when the dictation is to be made and to lay it down when the dictation is to be suspended.

Figure 1 of Henderson is a perspective of a phonograph speaking tube 1 with his invention applied thereto. Figure 2 is a similar view on a smaller scale, and in which is also shown by dotted lines two of the many positions to which the tube can be adjusted.

The speaking tube 1 is of flexible form in common use and has the usual mouth piece 2 and coupling 3 by which it is attached to the diaphragm of the machine not shown. A first clamp 4 is secured around the tube 2 near the mouth piece 2 and a second clamp 16 is secured around the tube 2 near the coupling 3. The first clamp 4 is connected to the second clamp 16 by means of adjustable arms 10 and 11.

Lastly, Henderson, teaches (page 3, line 123, to page 4, line 6) that:

> It will be understood that the invention is not intended to be confined to phonograph speaking tubes where it can be used with good results in other forms of sound transmitters but it is as hereinbefore stated particularly well adapted to phonograph and kindred machines.
>
> It will also be apparent that the invention is capable of very wide application, the forms illustrated in Figs. 4 to 8 admitting of the ball being turned in the socket or the socket turned on the ball to carry an arm extending therefrom to various angles of adjustment up or down or horizontally.
>
> The same features of construction can be used in a support constituting a telephone holder or an incandescent electric light support, as well as in other kinds of supports.

In the rejection before us in this appeal (answer, pp. 3-4), the examiner (1) ascertained[1] that Metzger differs from the claimed subject matter in the linkage being secured to the at least two collars; and (2) concluded that it would have been

[1] After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

obvious to one having ordinary skill in the art at the time the invention was made to have incorporated Henderson's teaching of a linkage (i.e., Henderson's adjustable arms 10 and 11) to the device of Metzger to allow for hands free positioning of the discharge hose.

The appellant argues throughout both briefs that the applied prior art does not suggest the claimed subject matter. We agree.

All the claims under appeal require the steps of (1) supporting the output end of a discharge hose by a pumping adapter having at least two collars and a linkage removably secured to the at least two collars for enabling said hose to move through a range of angles; and (2) forming a bend in the discharge hose by applying a force having at least a normal component to at least one of the collars such that the bend aids in imparting a controlled substantially splatter free delivery, wherein the force is applied by the linkage. However, it is our opinion that these limitations are not suggested by the combined teachings of Metzger and Henderson. In that regard, while Henderson does teach an apparatus similar in structure to the appellant's pumping adapter, Henderson does not teach or suggest using that apparatus in the method set forth in claim 20. The mere fact that the prior art could be modified in the manner suggested by the examiner does not make such a modification obvious unless the prior

art suggested the desirability of the modification. See In re Gordon, 773 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In our view, the only suggestion for modifying Metzger in the manner proposed by the examiner to meet the above-noted method limitations stems from hindsight knowledge derived from the appellant's own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

For the reasons set forth above, the decision of the examiner to reject claim 20, and claims 13 and 16 to 19 dependent thereon, under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 13 and 16 to 20 under 35 U.S.C. § 103 is reversed.

REVERSED

NEAL E. ABRAMS Administrative Patent Judge	)	
LAWRENCE J. STAAB Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

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